

Current Flow Diagrams	No.
● Boat Engine, 2.5 litre - TDI and SDI from July 2001	1/1
- Alternator, voltage regulator, starter, starter relay, starting aid relay, earth switch-off relay, diode group, fuse for Ter. 30a, battery spilt charge relay	1/2
- Ignition/starter switch, gearbox switch, throttle switch, Terminal 15 relay	1/3
- Diesel direct injection system control unit, idling switch, accelerator position sender, glow plug relay, voltage supply relay, commencement of injection valve, glow plugs	1/4
- Diesel direct injection system control unit, coolant temperature sender, engine speed sender, intake manifold pressure sender, intake manifold temperature sender, diagnosis plug (engine) .	1/5
- Diesel direct injection system control unit, fuel temperature sender, modulating piston-movement sender, metering adjuster, clutch switch, needle lift sender	1/6
- Diesel direct injection system control unit, fuel pump, fuel pump relay, diagnosis plug (panel) . .	1/7
- Oil extraction pump, engine stop relay - fuse box/relay plate, oil extraction pump relay, oil extraction pump button, Emergency-off button, fuel shut-off activation relay, fuel shut-off valve	1/8
- Oil pressure switch, coolant temperature switch, oil pressure display unit, coolant temperature display unit	1/9
- Bulb monitor relay, confirmation button, buzzer/gong, operating voltage display unit	1/10
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List of Current Flow Diagrams, Fault Finding Programmes and Fitting Locations published to date

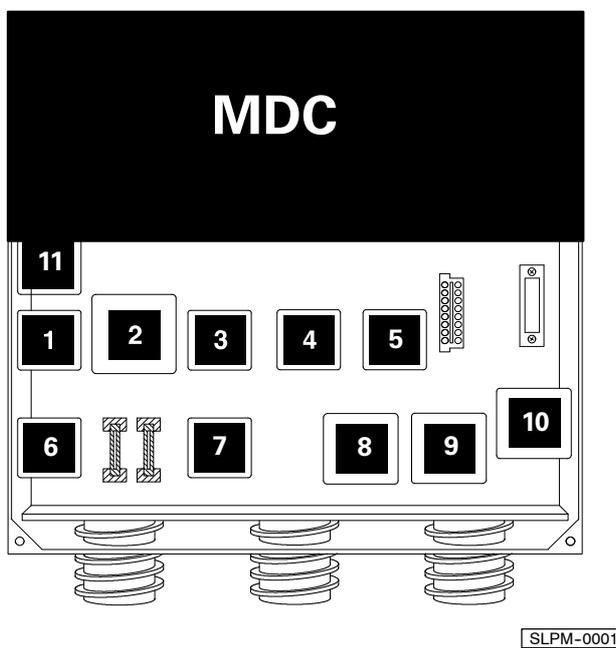
Current Flow Diagram No.	Fault Finding Program No.	Fitting Location No.	Published in Article No
1	-	-	M5.0001 to M5.00012

Always specify the Article No. when ordering current flow diagrams, fault finding programmes and fitting locations.

5-Cylinder Boat Engine

● 2.5 Litre - TDI and SDI

from July 2000



Relay sockets on relay plate:

- 1** Starting aid relay
- 2** Diode group
- 3** Starter relay
- 4** Engine stop relay - fuse box/relay plate
- 5** Fuel shut-off activation relay
- 6** Oil extraction pump relay
- 7** Fuel pump relay
- 8** Coolant level relay
- 9** Water separator relay
- 10** Glow plug relay
- 11** Voltage supply relay - Terminal 30

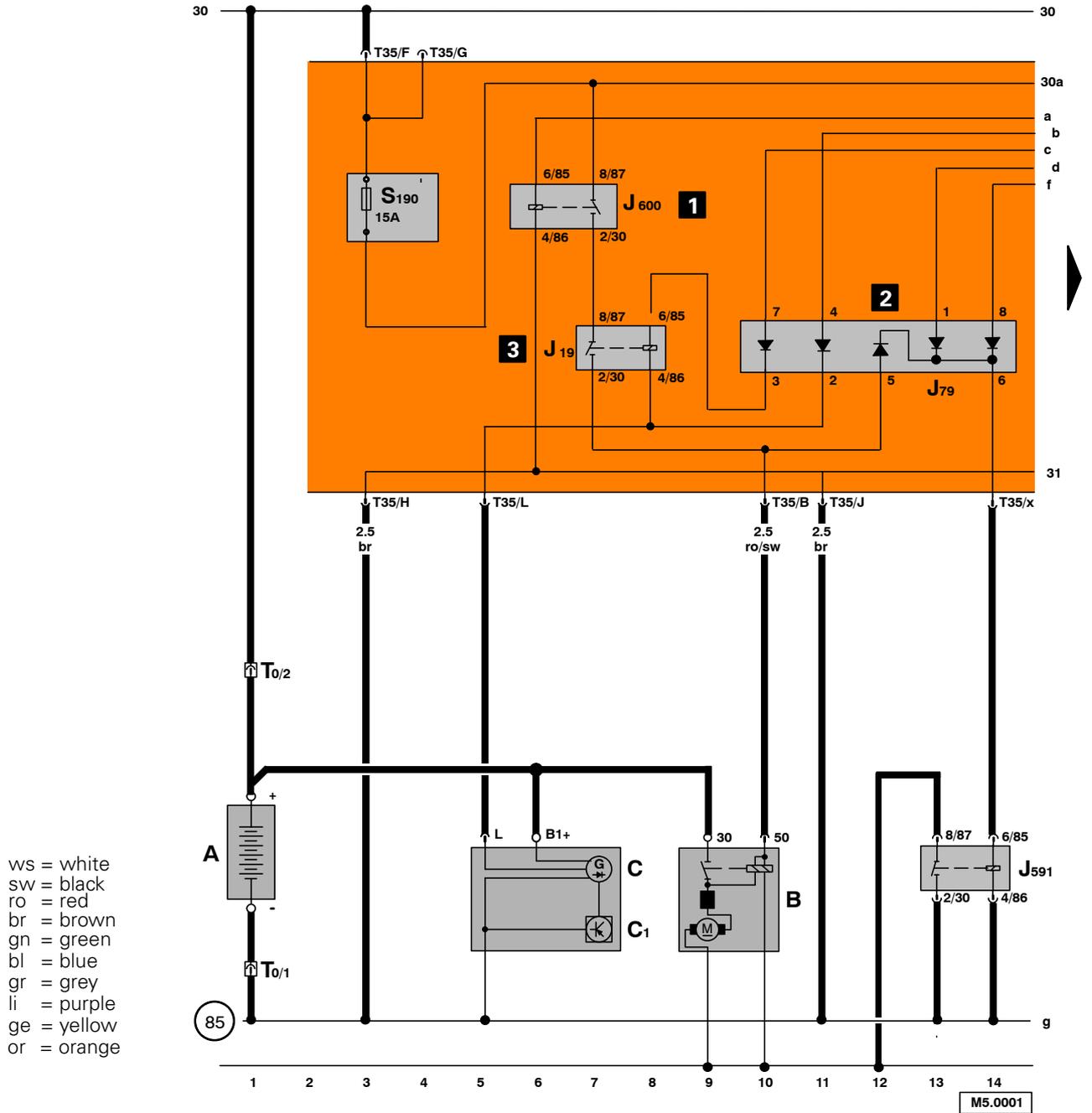
Note:

The brackets following the part designation refer to the control number on the housing.

Fuse colours

- 30 A - green
- 26 A - white
- 20 A - yellow
- 15 A - blue
- 10 A - red
- 7.5 A - brown
- 5 A - beige
- 3 A - purple

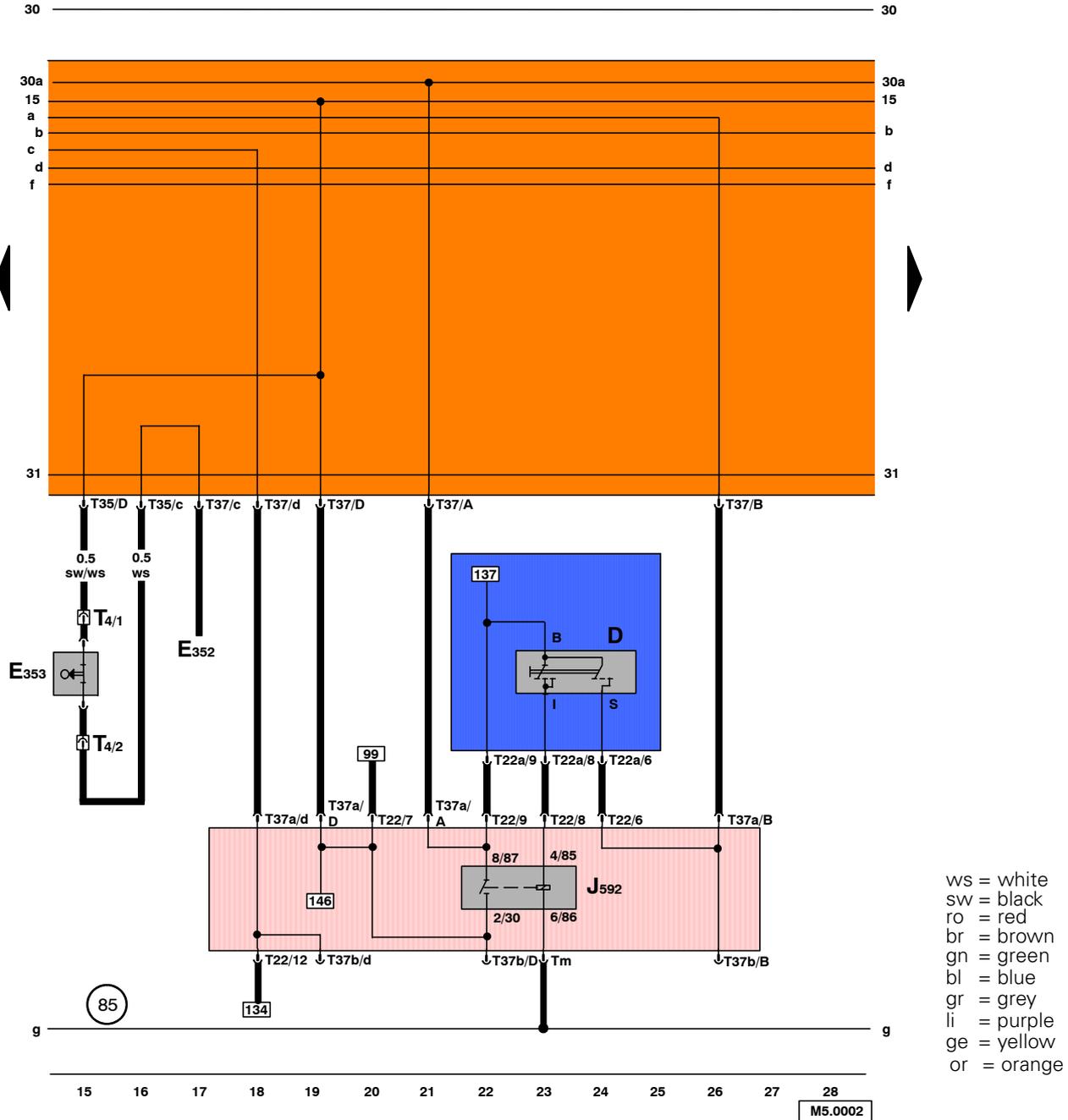
Alternator, voltage regulator, starter, starter relay, starting aid relay, earth switch-off relay, diode group



- A - Battery
- B - Starter
- C - Alternator
- C1 - Voltage regulator
- J19 - Starter relay
- J79 - Diode group
- J591 - Earth switch-off relay
- J600 - Starting aid relay
- S190 - Terminal 30 voltage supply fuse
- T0 - High-voltage battery connector
- T35 - 35-pin connector, fuse box/relay plate to engine wiring harness
- T37 - 37-pin connector, on fuse box/relay plate

- (85) - Earth connection -1-, in engine compartment wiring harness
- Orange box - Fuse box/relay plate on engine

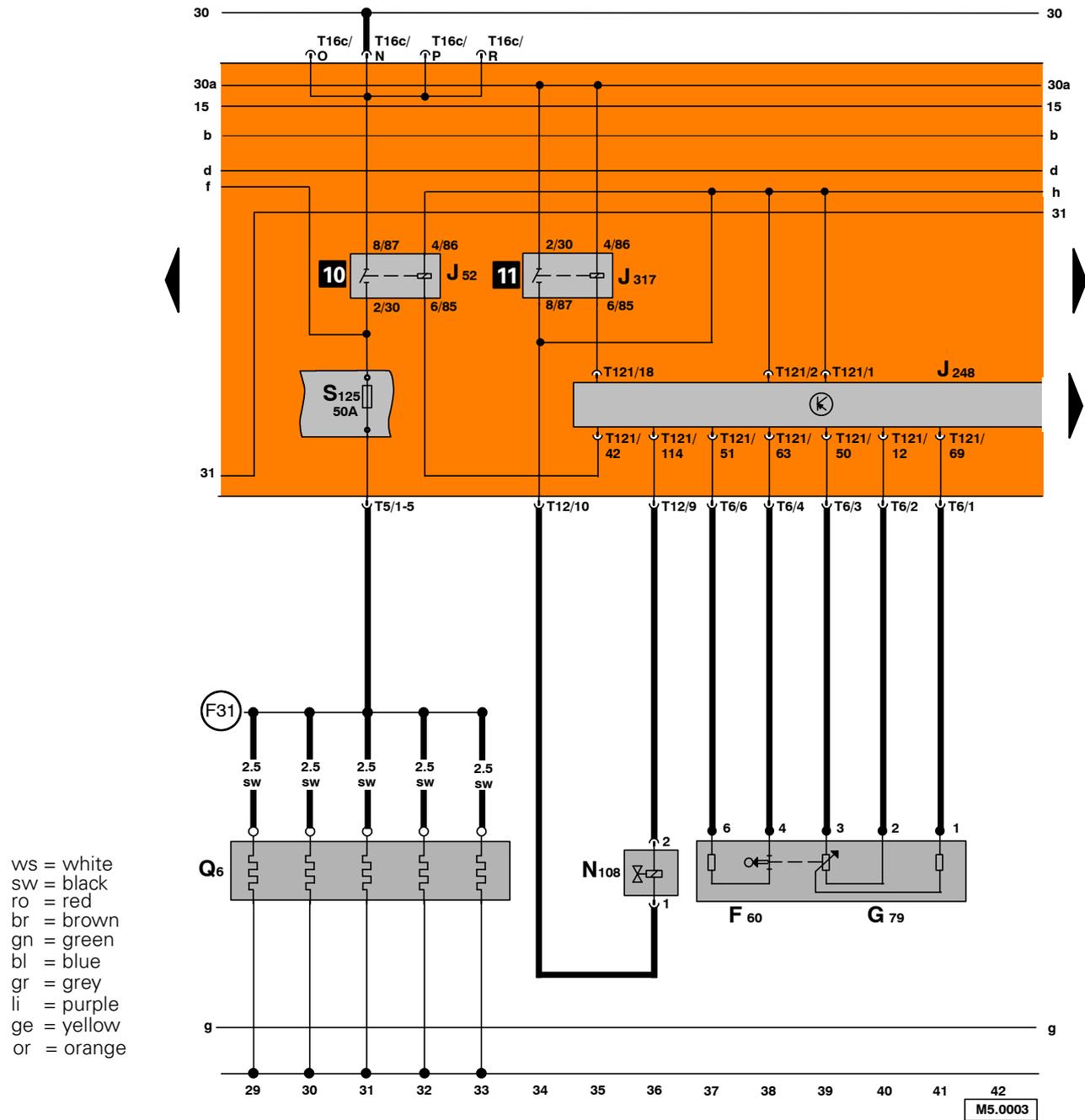
Ignition/starter switch, gearbox switch, throttle switch, Terminal 15 relay



- D - Ignition/starter switch
- E352 - Gearbox neutral switch
- E353 - Throttle neutral switch *
- J592 - Terminal 15 relay
- S33 - Terminal 15 control single fuse
- T4 - 4-pin connector, on engine wiring harness
- T22 - 22-pin connector, on relay box
- T22a - 22-pin connector, on panel
- T35 - 35-pin connector, fuse box/relay plate to engine wiring harness
- T37 - 37-pin connector, on fuse box/relay plate
- T37a - 37-pin connector, on relay box
- T37b - 37-pin connector, on relay box to fly bridge

- Tm - Earth connection point, on panel electrical box
- 85 - Earth connection -1- in engine compartment wiring harness
- Blue box - Main panel/instrumentation
- Orange box - Fuse box/relay plate on engine
- Pink box - Relay box, near main panel
- * - Dependent on gearbox

Diesel direct injection system control unit, idling switch, accelerator lever position sender, glow plug relay, voltage supply relay, commencement of injection valve, glow plugs



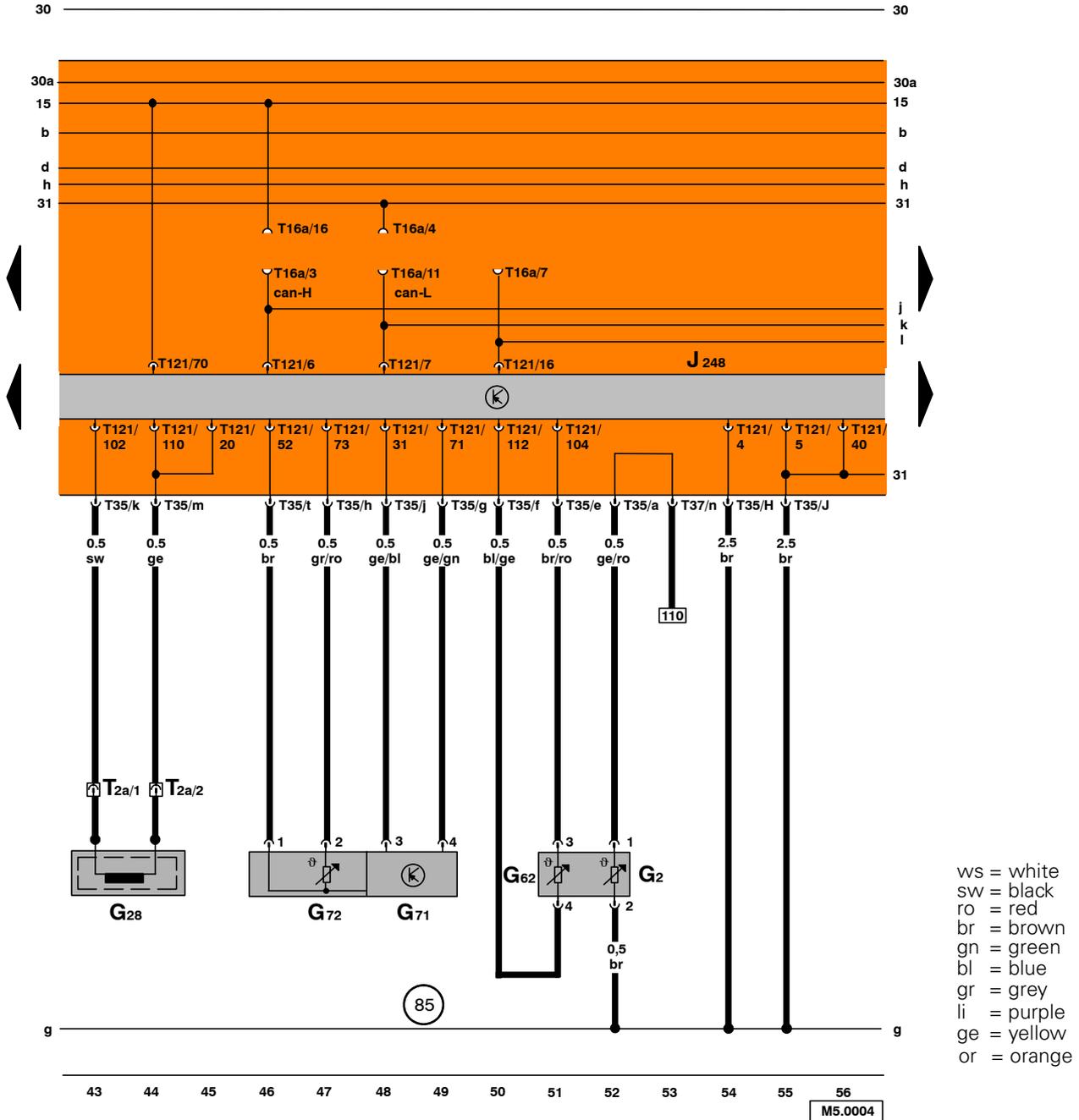
- F60 - Idling switch
- G79 - Accelerator lever position sender
- J52 - Glow plug relay
- J248 - Diesel direct injection system control unit
- J317 - Terminal 30 voltage supply relay
- N108 - Commencement of injection valve
- Q6 - Glow plugs
- S125 - Glow plug fuse
- T5 - 5-pin connector, for glow plugs (rear wall of fuse box/relay plate)
- T6 - 6-pin connector, for PWG (rear wall of fuse box/relay plate)
- T12 - 12-pin connector, for injection pump (rear wall of fuse box/relay plate)
- T16c - 16-pin connector, on fuse box/relay plate, feature connector

T121 - 121-pin connector, on diesel direct injection system control unit

(F31) - Connection (glow plugs - engine), in diesel direct injection system wiring harness

Orange box - Fuse box/relay plate on engine

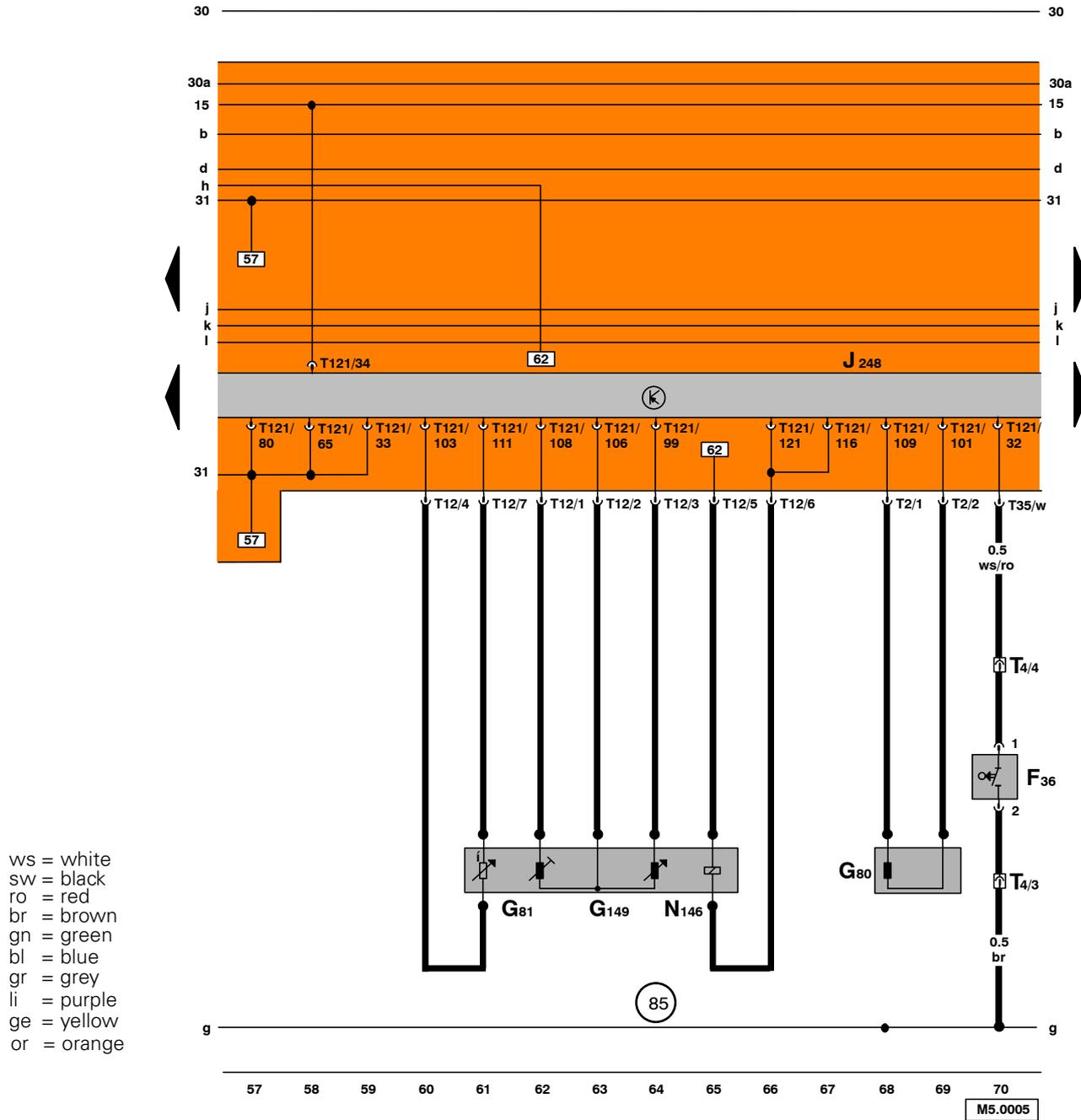
Diesel direct injection system control unit, coolant temperature sender, engine speed sender, intake manifold pressure sender, intake manifold temperature sender, diagnosis plug (engine)



- G2 - Coolant temperature sender
- G62 - Coolant temperature sender
- G28 - Engine speed sender
- G71 - Intake manifold pressure sender
- G72 - Intake manifold temperature sender
- J248 - Diesel direct injection system control unit
- T2a - 2-pin connector, on speed sender
- T35 - 35-pin connector, fuse box/relay plate to engine wiring harness
- T37 - 37-pin connector, on fuse box/relay plate
- T16a - 16-pin connector, on engine, self-diagnosis connection
- T121 - 121-pin connector, on diesel direct injection system control unit

- (85) - Earth connection -1-, in engine compartment wiring harness
- Orange box - Fuse box/relay plate on engine

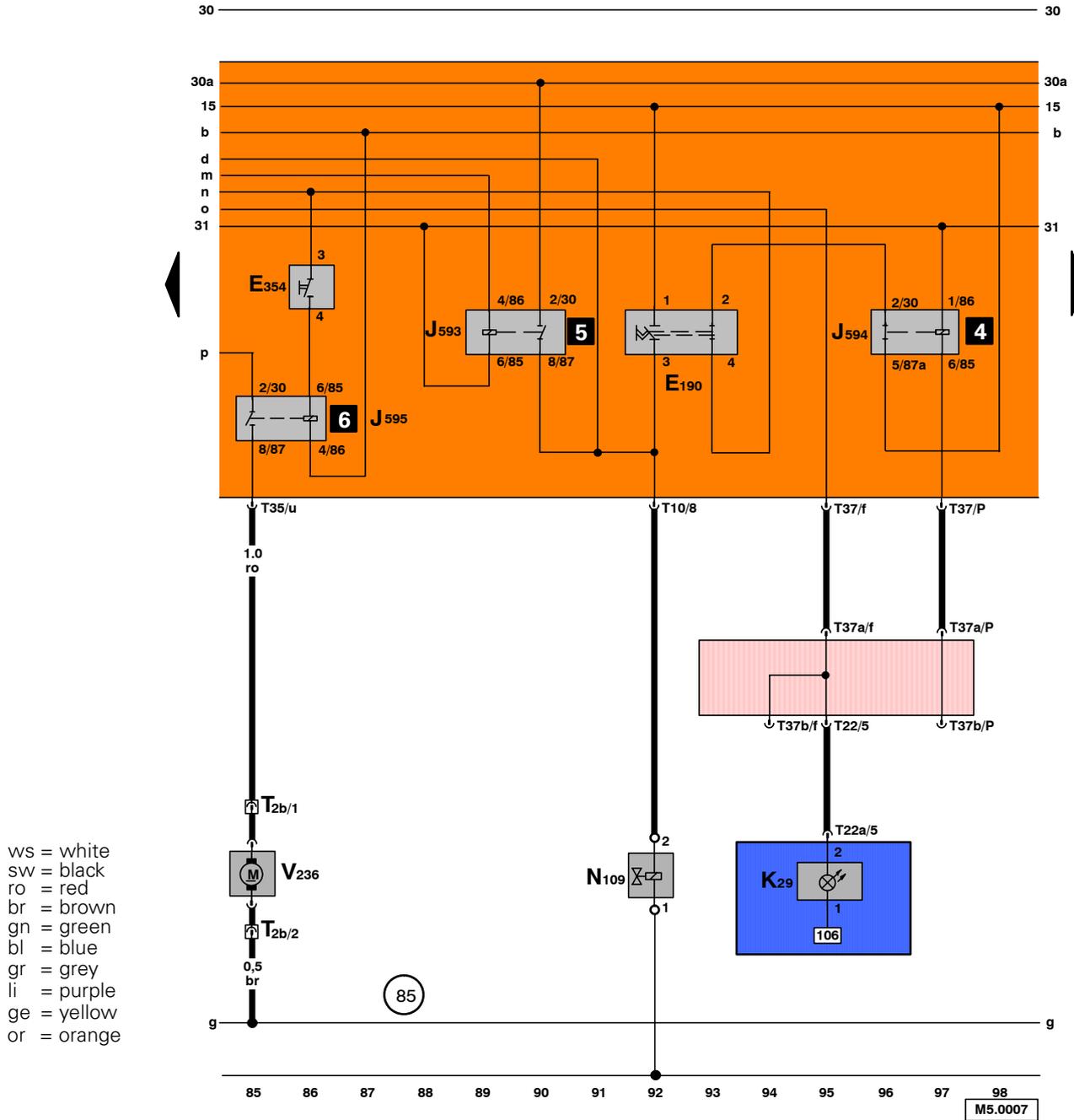
Diesel direct injection system control unit, fuel temperature sender, modulating piston movement sender, metering adjuster, clutch switch, needle lift sender



- F36 - Clutch switch
- G80 - Needle lift sender
- G81 - Coolant temperature sender
- G149 - Modulating piston movement sender
- J248 - Diesel direct injection system control unit
- N146 - Metering adjuster
- T2 - 2-pin connector, on needle lift sender
- T4 - 4-pin connector, on engine wiring harness
- T12 - 12-pin connector, for injection pump (rear wall of fuse box/relay plate)
- T35 - 35-pin connector, fuse box/relay plate to engine wiring harness
- T121 - 121-pin connector, on diesel direct injection system control unit

- 85 - Earth connection -1-, in engine compartment wiring harness
- Orange box - Fuse box/relay plate on engine

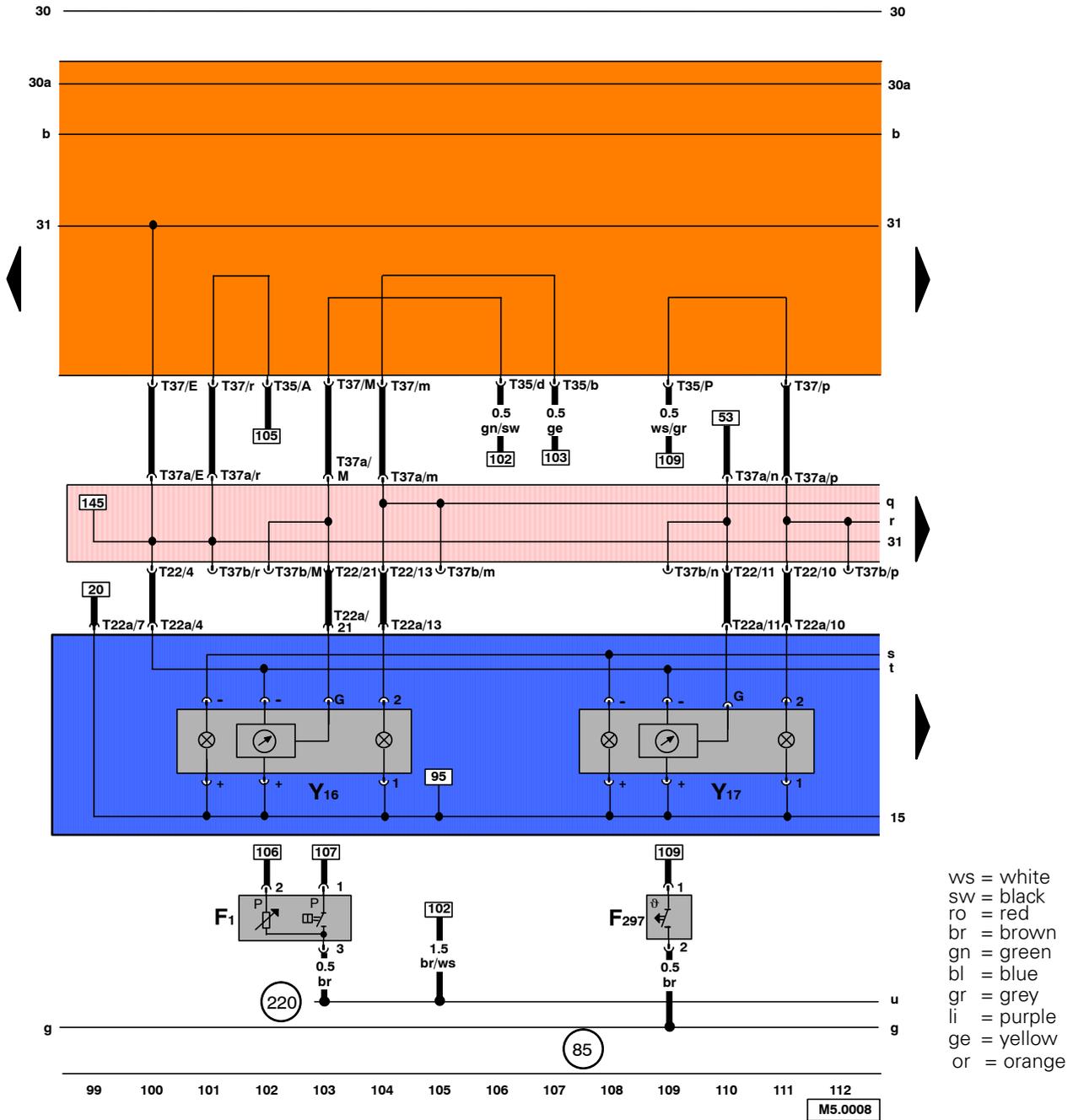
Oil extraction pump, engine stop relay - fuse box/relay plate, oil extraction pump relay, oil extraction pump button, Emergency-off button, fuel shut-off activation relay, fuel shut-off valve



- ws = white
- sw = black
- ro = red
- br = brown
- gn = green
- bl = blue
- gr = grey
- li = purple
- ge = yellow
- or = orange

- E190 - Emergency-off button
- E354 - Oil extraction pump button
- J593 - Fuel shut-off activation relay
- J594 - Engine stop relay - fuse box/relay plate (optional remote control)
- J595 - Oil extraction pump relay
- K29 - Glow period warning lamp
- N109 - Fuel shut-off valve
- T2b - 2-pin connector, on oil extraction pump
- T10 - 10-pin connector, for injection pump (back of fuse box/relay plate)
- T22 - 22-pin connector, on relay box
- T22a - 22-pin connector, on panel
- T35 - 35-pin connector, fuse box/relay plate to engine wiring harness
- T37 - 37-pin connector, on fuse box/relay plate
- T37a - 37-pin connector, on relay box
- T37b - 37-pin connector, on relay box to fly bridge
- V236 - Oil extraction pump
- 85 - Earth connection -1-, in engine compartment wiring harness
- Blue - Main panel/instrumentation
- Orange - Fuse box/relay plate on engine
- Pink - Relay box, near main panel

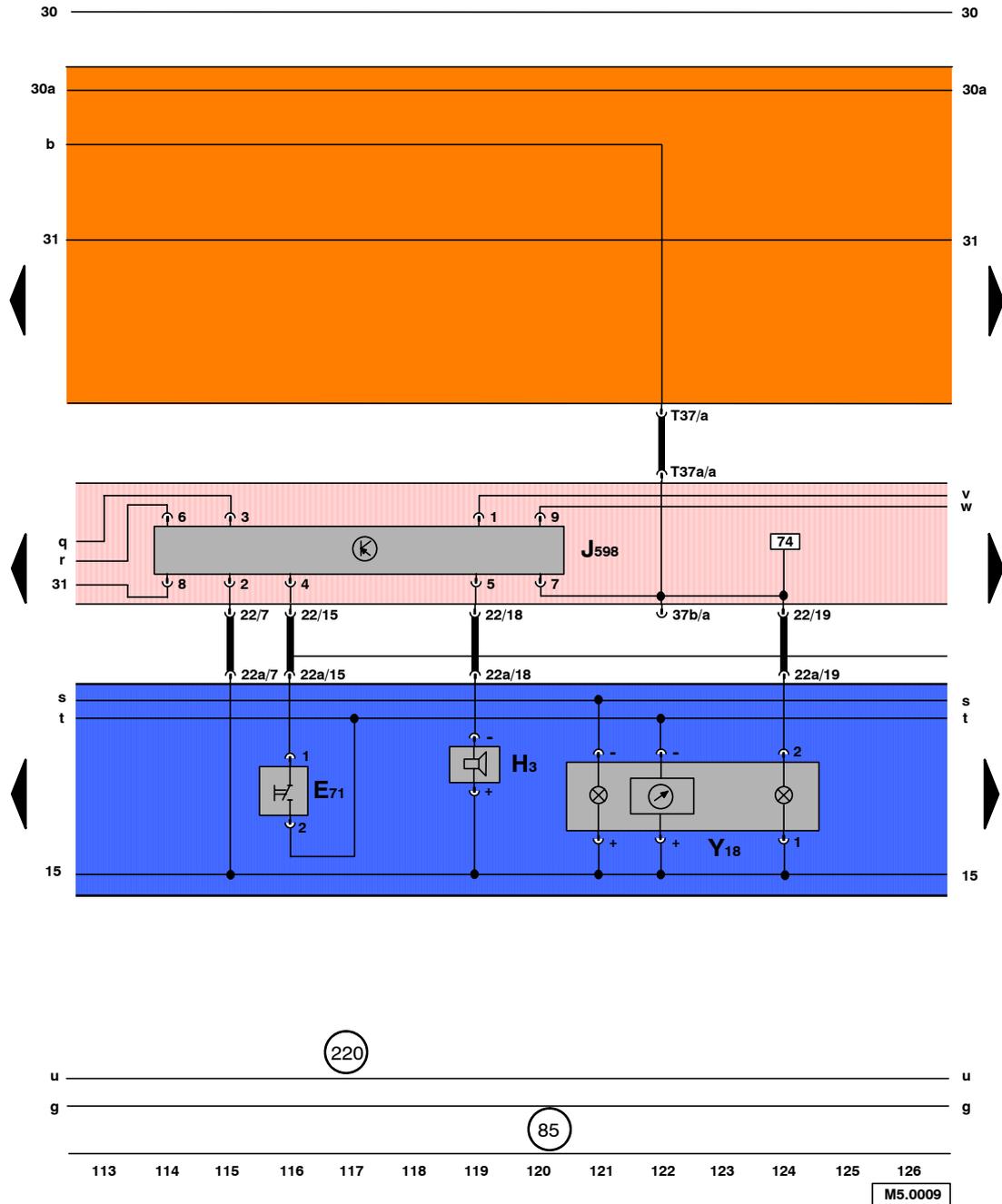
Oil pressure switch, coolant temperature switch, oil pressure display unit, coolant temperature display unit



- F1 - Oil pressure switch/sender
- F297 - Coolant temperature switch
- Y16 - Oil pressure display unit
- Y17 - Coolant temperature display unit
- T22 - 22-pin connector, on relay box
- T22a - 22-pin connector, on panel
- T35 - 35-pin connector, fuse box/relay plate to engine wiring harness
- T37 - 37-pin connector, on fuse box/relay plate
- T37a - 37-pin connector, on relay box

- (85) - Earth connection -1-, in engine compartment wiring harness
- (269) - Earth connection (sender earth), in engine wiring harness
- [Blue Box] - Main panel/instrumentation
- [Orange Box] - Fuse box/relay plate on engine
- [Pink Box] - Relay box, near main panel

Bulb monitor relay, confirmation button, buzzer/gong, operating voltage display unit



- ws = white
- sw = black
- ro = red
- br = brown
- gn = green
- bl = blue
- gr = grey
- li = purple
- ge = yellow
- or = orange

- E71 - Confirmation button
- H3 - Buzzer/gong
- J598 - Bulb monitor relay
- Y18 - Operating voltage display unit
- T22 - 22-pin connector, on relay box
- T22a - 22-pin connector, on panel
- T35 - 35-pin connector, fuse box/relay plate to engine wiring harness
- T37 - 37-pin connector, on fuse box/relay plate
- T37a - 37-pin connector, on relay box
- T37b - 37-pin connector, on relay box to fly bridge

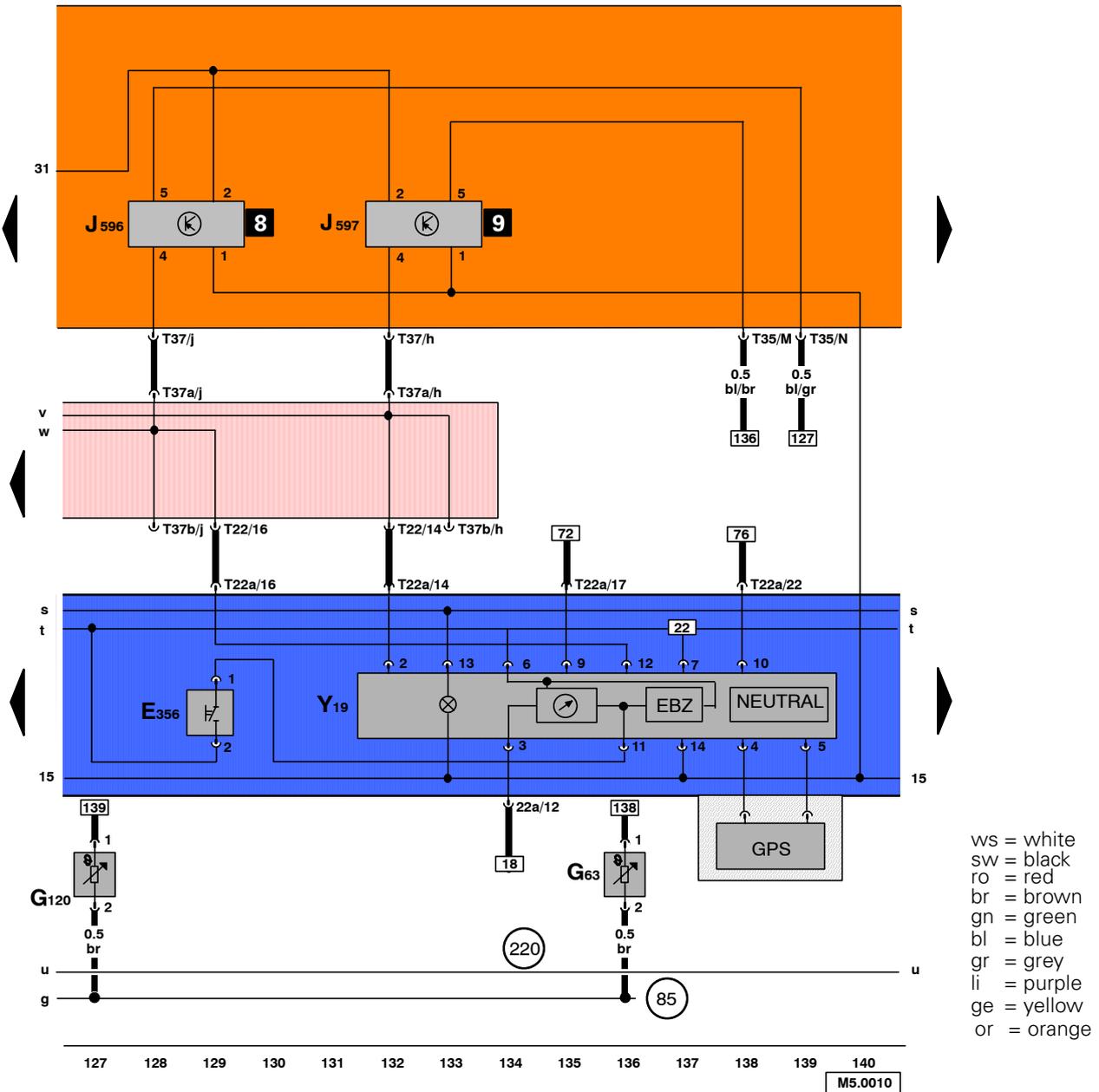
- (85) - Earth connection -1-, in engine compartment wiring harness
- (220) - Earth connection (sender earth), in engine wiring harness

- Main panel/instrumentation
- Fuse box/relay plate on engine
- Relay box, near main panel

Consumption display button, water separator sender, engine speed and gearbox position display unit, water level sender, coolant level relay, water separator relay

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- ws = white
- sw = black
- ro = red
- br = brown
- gn = green
- bl = blue
- gr = grey
- li = purple
- ge = yellow
- or = orange

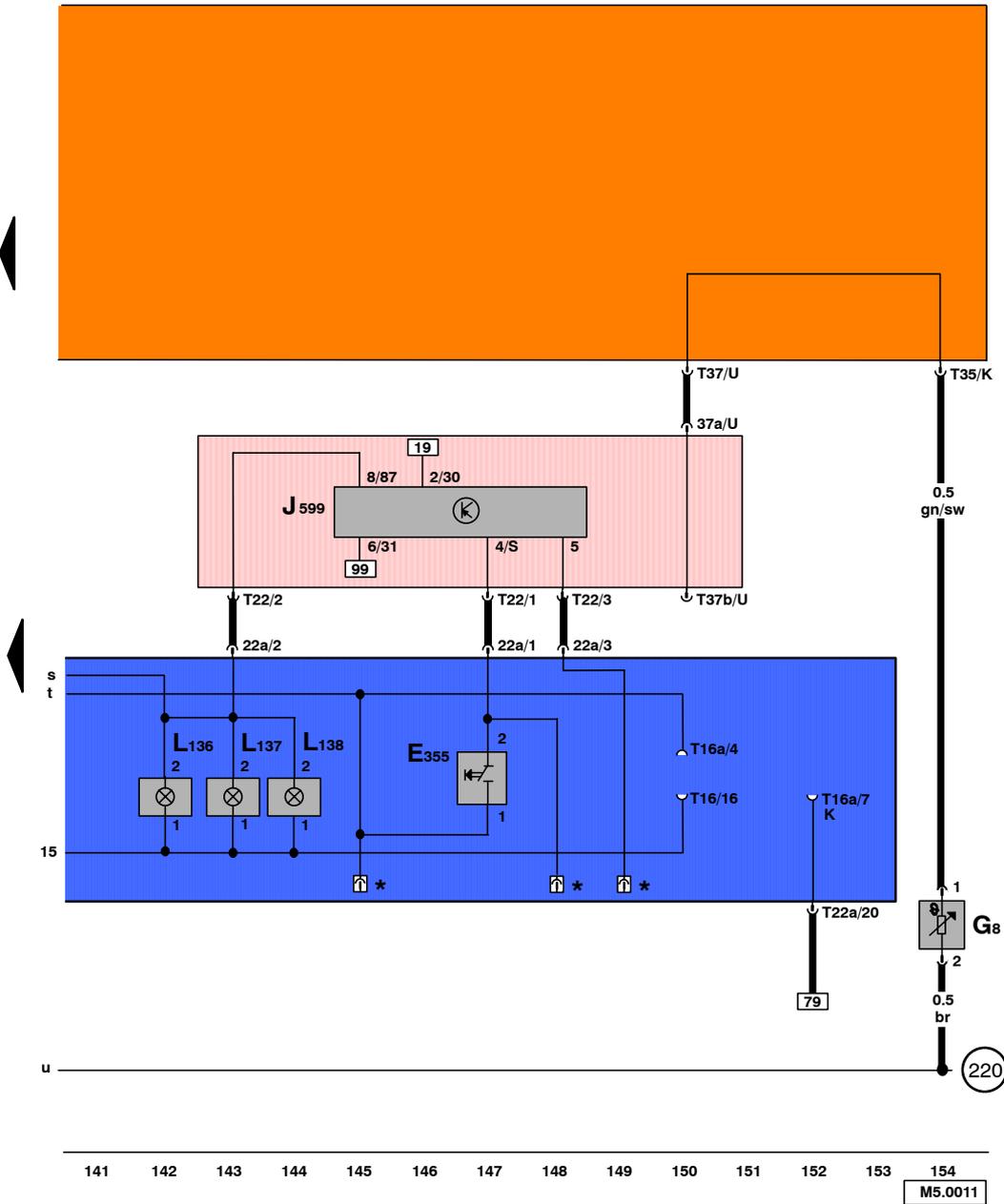
- E356 - Consumption display button
- G63 - Water separator sender
- G120 - Water level sender
- J596 - Coolant level relay
- J597 - Water separator relay
- Y19 - Engine speed, EBZ and gearbox position display unit
- T22 - 22-pin connector, on relay box
- T22a - 22-pin connector, on panel
- T35 - 35-pin connector, fuse box/relay plate to engine wiring harness
- T37 - 37-pin connector, on fuse box/relay plate
- T37a - 37-pin connector, on relay box
- T37b - 37-pin connector, on relay box to fly bridge

- (85) - Earth connection -1-, in engine compartment wiring harness
- (220) - Earth connection (sender earth), in engine wiring harness
- Blue box - Main panel/instrumentation
- Orange box - Fuse box/relay plate on engine
- Pink box - Relay box, near main panel

Dimmer button, oil temperature sender, instrument illumination, dimmer

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- ws = white
- sw = black
- ro = red
- br = brown
- gn = green
- bl = blue
- gr = grey
- li = purple
- ge = yellow
- or = orange

- (220) - Earth connection (sender earth), in engine wiring harness
- Blue square - Main panel/instrumentation
- Orange square - Fuse box/relay plate on engine
- Pink square - Relay box, near main panel
- * - For other engine side

- E355 - Dimmer button
- G8 - Oil temperature sender
- J599 - Dimmer, marine engine
- L136 - Bulb monitor button illumination
- L137 - Consumption display button illumination
- L338 - Dimmer button illumination
- T16 - 16-pin connector, on panel, self-diagnosis connection
- T22 - 22-pin connector, on relay box
- T22a - 22-pin connector, on panel
- T35 - 35-pin connector, fuse box/relay plate to engine wiring harness
- T37 - 37-pin connector, on fuse box/relay plate
- T37a - 37-pin connector, on relay box
- T37b - 37-pin connector, on relay box to fly bridge